

Remarks

This paper is in response to the office action mailed July 30, 2007, that was made final. Claims 1-24 were withdrawn in response to an election/restriction requirement. The allowance of Claims 31 and 32 is noted with appreciation.

Rejections Under 35 U.S.C. § 102

Claims 25-26, 33-34 and 37 have been rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Mantell et al.; the Applicant respectfully traverses the rejection. The Office action indicates that the recited language of ‘each super pixel receives a print data contribution from at least two print data pixels’ may be simply and broadly construed as ‘each super pixel is formed/contributed by at least two pixels associated with print data’.

The Applicant respectfully submits that a person of ordinary skill in the art would clearly understand that a ‘print data pixel’ is a portion of the image data corresponding to a single pixel of that image – an abstract entity – whereas a ‘print pixel’ is a single element of the printed pattern – a physical entity.

In addition, it is respectfully submitted that the interpretation of these terms advanced by the Office action is not logically consistent. Firstly, it should be noted that the claims use the two distinct terms a ‘*print data pixel*’ and a ‘*print pixel*’. It is a general rule of patent claim construction that where two different terms are used, it is proper to infer the applicant intended his choice of different terms to reflect a differentiation in the meaning of those terms. *See, e.g., Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004) (“the use of [two] terms in close proximity in the same claim gives rise to an inference that a different meaning should be assigned to each. *See Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1579 (Fed. Cir. 1996) (stating that if two terms described a single element, ‘one

would expect the claim to consistently refer to this element [with one or the other of the two terms], but not both, especially within the same clause’).”). Further, the ‘print data pixels’ contribute print data according to a distribution function, whereas the ‘print pixels’ receive print contributions from at least two super pixels. Again, two different terms are used for the contributions relating to ‘print data pixels’ and ‘print pixels’, once more underlining the fact that these two terms must be interpreted differently.

By contrast, the Office action appears to interpret a ‘print data pixel’ as ‘a pixel associated with print data’. Under such an interpretation, there ceases to be any difference whatsoever between the terms, as any type of pixel must be associated with data in some way. This clearly runs contrary to the purpose of using two different terms, and a basic canon of patent claim construction, which is to imply two different meanings.

Secondly, the Office action indicates that the ink drops of Figure 12 in Mantell et al. are considered as both ‘print data pixels’ and ‘print pixels’, so that the overlap of these ink drops is seen as both a contribution of print data and a contribution of print. By comparison, the Applicant’s claimed method comprises two separate steps: one in which print data pixels contribute print data to super pixels; and another in which super-pixels contribute print to print pixels. If, as the Office action suggests, both print data pixels and print pixels are given the same meaning and a ‘print data contribution’ and a print contribution’ are given the same meaning, then the two steps of the method are no longer distinct – both happening instantaneously when ink drops land on the substrate. Put differently, a reasonable interpretation of a two-step method claim cannot result in it being construed as a single step method.

Thirdly, by referring to the ‘print data contribution’ varying in sign, the language of Claim 27 makes it clear that the ‘print data contribution’ of Claim 25 may be positive or

negative. This does not mean that the limitation of Claim 27 is implicitly included in Claim 25, but that the terms of Claim 25 must be given a meaning which does not contradict with their use in the dependent claims. It is respectfully submitted that the Office action has inaccurately interpreted a 'print data contribution' as including the partial overlap of one ink drop with another. This interpretation is clearly contradicted by the language in claim 27, for example, reciting that the print data contribution varies in sign. Since it is physically impossible for one ink drop to remove ink from another, the interpretation of the "print data contribution" proposed in the final Action must be incorrect.

When the Applicant's claims are properly interpreted as a two-step method, Mantell et al. cannot disclose the claimed invention. Looking to Figure 12 of the reference, the Office action indicates the pairs of overlapping drops as super pixels, each pair being produced under the control of a single actuator (represented by a vertical line in the figure). In order to anticipate the Applicant's claims, Mantell et al. would need to disclose a step of distributing print data such that each print data pixel contributes print data to two or more super pixels. This would require some manner of processing of the print data before it reached the actuators which are responsible for forming the super pixels; however, the document fails to teach any distribution of print data to two or more actuators. As Mantell et al. is silent with regard to any such data processing step, it cannot anticipate the Applicant's claims.

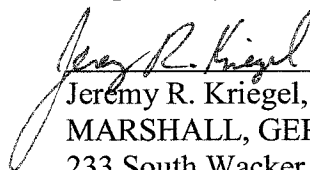
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Claims 27-30 and 35-36 are rejected as allegedly obvious to one of ordinary skill in the art from Mantell et al. in view of Silverbrook, WO 02/02330 A1. It is respectfully submitted that because these claims depend from allowable claims for the reasons discussed above, these

dependent claims are likewise in condition for allowance. Withdrawal of the rejections is respectfully solicited.

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Respectfully submitted,



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